

Alcohol and Tobacco Tax and Trade Bureau, Treasury

§ 21.161

**DENATURANTS AUTHORIZED FOR COMPLETELY
DENATURED ALCOHOL (C.D.A), SPECIALLY
DENATURED ALCOHOL (S.D.A.), AND SPE-
CIALY DENATURED RUM (S.D.R.)—Contin-
ued**

Quinine dihydrochloride, N.F.XI	S.D.A. 39-A.
Quinine sulfate, U.S.P	S.D.A. 39-D.
Resorcinol (Resorcin), U.S.P	S.D.A. 23-F.
Rosemary oil, N.F. XII	S.D.A. 27, 38-B.
Rubber hydrocarbon solvent	C.D.A. 18, 19, 20; S.D.A. 2-B, 2-C, 28-A.
Safrole	S.D.A. 38-B.
Salicylic acid, U.S.P	S.D.A. 23-F, 39.
Sassafras oil, N.F.XI	S.D.A. 38-B.
Shellac (refined)	S.D.A. 45.
Soap, hard, N.F.XI	S.D.A. 31-A.
Sodium iodide, U.S.P	S.D.A. 25, 25-A.
Sodium, metallic	S.D.A. 2-C.
Sodium salicylate, U.S.P	S.D.A. 39, 39-D.
Spearmint oil, N.F	S.D.A. 38-B.
Spearmint oil, terpeneless	S.D.A. 38-B.
Spike lavender oil, natural	S.D.A. 38-B.
Storax, U.S.P	S.D.A. 38-B.
Sucrose octaacetate	S.D.A. 40-A.
Thimerosal, U.S.P	S.D.A. 42.
Thyme oil, N.F.XII	S.D.A. 38-B.
Thymol, N.F	S.D.A. 37, 38-B, 38-F.
Tolu balsam, U.S.P	S.D.A. 38-B.
Toluene	S.D.A. 2-B, 2-C, 12-A.
Turpentine oil, N.F.XI	S.D.A. 38-B.
Vinegar	S.D.A. 18.
Zinc chloride, U.S.P	S.D.A. 38-F.

[T.D. ATF-133, 48 FR 24673, June 2, 1983, as amended by T.D. ATF-442, 66 FR 12854, Mar. 1, 2001]

**Subpart H—Weights and Specific
Gravities of Specially Denatured Alcohol**

**§ 21.161 Weights and specific gravities
of specially denatured alcohol.**

The weight of one gallon of each formula of specially denatured alcohol at 15.56 °C. (60 °F.) is as listed in this section. The specific gravity of each formula of specially denatured alcohol at 15.56 °C./15.56 °C. (60 °F./60 °F.) in air is as listed in this section. (Weight of 1 gallon of water at 15.56 °C. (60 °F.) is 8.32823 pounds in air.)

WEIGHTS AND SPECIFIC GRAVITIES OF SPECIALLY DENATURED ALCOHOL ¹

[Slight deviations from this table may occur due to variations in specific gravities of authorized denaturants. Values for 190 proof determined experimentally in air. Other values calculated from these gravities.]

S.D.A. Formula No.	Finished formula (gals)	190 proof		192 proof		200 proof	
		Wt./gal. in air (lbs)	Sp. gr. in air	Wt./gal. in air (lbs)	Sp. gr. in air	Wt./gal. in air (lbs)	Sp. gr. in air
1	104.0	6.788	0.8151	6.756	0.8112	6.611	0.7938
2-B	100.5	6.795	.8159	6.762	.8119	6.612	.7939
2-C	99.5					6.959	.8356
3-A	105.0	6.787	.8149	6.755	.8111	6.611	.7938
3-B	101.0	6.810	.8177	6.777	.8137	6.627	.7957
3-C	105.0	6.784	.8146	6.752	.8107	6.608	.7935
4	100.8	6.823	.8193	6.791	.8154	6.640	.7973
6-B	100.5	6.801	.8166	6.768	.8127	6.618	.7947
12-A	105.0	6.820	.8189	6.789	.8152	6.645	.7979
13-A	109.7	6.740	.8093	6.710	.8057	6.572	.7891
17	100.05	6.795	.8159	6.762	.8119	6.611	.7938
18	195.4	7.802	.9368	7.785	.9348	7.708	.9255
19	197.9	6.468	.7766	6.452	.7747	6.375	.7655
20	104.9	7.062	.8480	7.030	.8441	6.886	.8268
22	109.5	7.037	.8450	7.007	.8414	6.868	.8247
23-A	107.9	6.788	.8151	6.758	.8115	6.619	.7948
23-F	101.5	6.808	.8175	6.776	.8136	6.627	.7957
23-H	109.45	6.785	.8147	6.755	.8111	6.617	.7945
25	100.9	7.080	.8501	7.047	.8462	6.897	.8282
25 ²	100.9	7.083	.8505	7.050	.8465	6.900	.8285
25-A	102.5	7.119	.8548	7.087	.8510	6.939	.8332
25-A ²	102.5	7.117	.8546	7.085	.8507	6.938	.8331
27	104.7	6.846	.8220	6.814	.8182	6.670	.8009
27-A	105.2	6.867	.8245	6.835	.8207	6.692	.8035
27-B	112.0	7.027	.8438	6.998	.8403	6.862	.8239
28-A	101.0	6.786	.8148	6.753	.8109	6.603	.7929
29	100.76	6.808	.8175	6.775	.8135	6.624	.7954
30	110.0	6.785	.8147	6.755	.8111	6.617	.7945
31-A	111.5	7.167	.8606	7.138	.8571	7.002	.8408
32	104.8	6.769	.8128	6.737	.8089	6.593	.7916
33	102.9	6.893	.8277	6.861	.8238	6.714	.8062
35 ³	135.0	6.956	.8352	6.933	.8325	6.820	.8189
35 ⁴	129.75	6.963	.8361	6.937	.8330	6.820	.8189
35-A ³	105.0	6.817	.8185	6.785	.8147	6.641	.7974

WEIGHTS AND SPECIFIC GRAVITIES OF SPECIALLY DENATURED ALCOHOL ¹—Continued

[Slight deviations from this table may occur due to variations in specific gravities of authorized denaturants. Values for 190 proof determined experimentally in air. Other values calculated from these gravities.]

S.D.A. Formula No.	Finished formula (gals)	190 proof		192 proof		200 proof	
		Wt./gal. in air (lbs)	Sp. gr. in air	Wt./gal. in air (lbs)	Sp. gr. in air	Wt./gal. in air (lbs)	Sp. gr. in air
35–A ⁴	104.25	6.826	.8196	6.794	.8158	6.649	.7984
36	102.7	6.837	.8209	6.804	.8170	6.657	.7993
37	100.9	6.794	.8158	6.762	.8119	6.612	.7939
38–B	101.3	6.804	.8170	6.772	.8131	6.622	.7951
38–C	102.6	6.832	.8203	6.800	.8165	6.652	.7987
38–D	102.7	6.863	.8241	6.830	.8201	6.682	.8023
38–F	100.9	6.828	.8199	6.796	.8160	6.646	.7980
39	102.0	6.867	.8245	6.834	.8206	6.686	.8028
39–A	100.5	6.810	.8177	6.777	.8137	6.627	.7957
39–B	102.7	6.857	.8233	6.825	.8195	6.677	.8017
39–C	101.0	6.819	.8188	6.792	.8155	6.642	.7975
39–D	101.3	6.819	.8188	6.787	.8149	6.637	.7969
40	100.1	6.795	.8159	6.762	.8119	6.611	.7938
40–A	100.2	6.798	.8163	6.765	.8123	6.613	.7941
40–B	100.1	6.794	.8158	6.761	.8118	6.610	.7937
40–C	103.0	6.788	.8151	6.756	.8112	6.609	.7936
42	100.0	6.797	.8161	6.764	.8122	6.613	.7941
44	110.0	6.790	.8153	6.760	.8117	6.622	.7951
45	129.8	7.545	.9060	7.520	.9030	7.403	.8889
46	100.1	6.805	.8171	6.772	.8131	6.621	.7950

¹ Where alternate denaturants are permitted, the above weights are based on the first denaturant or combination listed in the formula.

² With sodium iodide.

³ Calculated on the basis of 85 percent ethyl acetate.

⁴ Calculated on the basis of 100 percent ethyl acetate.

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